



Presented By
Santa Fe Irrigation District

ANNUAL WATER QUALITY REPORT

WATER TESTING
PERFORMED IN 2014

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: 3710023

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to exceed the requirements of the SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if you ever have any questions or concerns about your water by calling us at (858) 756-2424.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

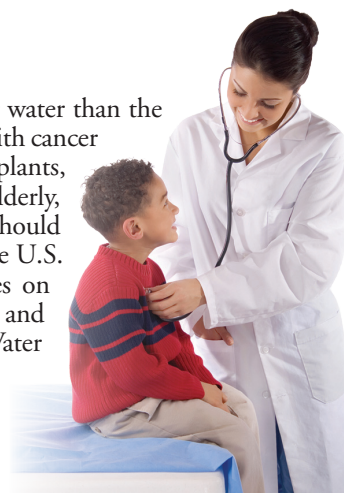
Public Meetings

The Santa Fe Irrigation District supplies water to a service area that includes the City of Solana Beach and the unincorporated communities of Rancho Santa Fe and Fairbanks Ranch. The Santa Fe Irrigation District is governed by an elected Board of Directors, with one member representing each of the five geographical divisions within the District. The regular monthly meeting of the Board of Directors is held on the third Thursday of each month at the District's Administrative Office.

The public is encouraged to attend the Board meetings. For agenda information, or day and time of the Board Meetings, please visit our Web site at www.sfidwater.org.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Where Does My Water Come From?

The Santa Fe Irrigation District and San Dieguito Water District jointly own and operate the R.E. Badger Filtration Plant. The plant treats both imported and local water. Imported water is delivered by pipeline from Lake Skinner located in the City of Hemet. Lake Skinner is a blend of water imported by the Metropolitan Water District of California from the Colorado River and the Sacramento River Delta. Local water originates from Lake Hodges and is either transferred to the San Dieguito Reservoir through a small aqueduct and then to the treatment plant, or directly to the treatment plant via the Cielo Pump Station.

Water Treatment Process

The water treatment process consists of a number of steps that progressively remove contaminants from the water. The process at the R.E. Badger Filtration plant is a Conventional Filtration process. This process begins with preoxidation, in which chlorine dioxide is added to oxidize many of the dissolved inorganics or organics and to help remove them later in the process. As water reaches the influent of the treatment plant, a coagulant is added which neutralizes the charge on particles in the water, causing them to coagulate or stick together. As they stick together, they eventually get heavier and sink to the bottom of the settling clarifier. The surface water is then collected, and chlorine is added to provide disinfection. The water then travels to the filters, where it passes through an anthracite and sand filter and any remaining particles are removed. After the filtering process, ammonia is added to the water which converts the chlorine disinfectant to a more stable form of disinfectant called chloramines. These chloramines have a much longer life span and ensure that the water stays disinfected as it travels through the distribution system to the customers.

Source Water Assessment

Local water supplies are considered most vulnerable to Agricultural and urban/storm runoff. A copy of the R.E. Badger Filtration Plant Watershed Sanitary Survey is available for review at the treatment plant. If you have any questions about this report, please call our Water Quality Analyst at (858) 756-2424.

In December 2007, Metropolitan Water District of Southern California completed its source water assessment of our imported water from the Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call our Water Quality Analyst at (858) 756-2424.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2014	1	0.6	0.08	ND–0.3	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2014	10	0.004	1.1	ND–2.2	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2014	1	2	0.082	0.065–0.092	No	Erosion of natural deposits
Chloramines (ppm)	2014	[4]	[4]	2.41	2.24–2.54	No	Drinking water disinfectant added for treatment
Chlorine Dioxide (ppb)	2014	800	800	<50	ND–10	No	Drinking water disinfectant added for treatment
Chlorite (ppm)	2014	1	0.5	0.18	ND–0.48	No	Byproduct of drinking water disinfection
DBP Precursors (ppm)	2014	TT	NA	2.74	2.18–4.11	No	Various natural and manmade sources
Fecal coliform and <i>E. coli</i> [Total Coliform Rule] (# positive samples)	2014	a routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive	(0)	0	NA	No	Human and animal fecal waste
Fluoride (ppm)	2014	2.0	1	0.28	0.26–0.28	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2014	15	(0)	1.95	NA	No	Decay of natural and man-made deposits
Gross Beta Particle Activity ¹ (pCi/L)	2014	50	(0)	5.4	NA	No	Decay of natural and man-made deposits
Haloacetic Acids (HAAs)—Stage 1 (ppb)	2014	60	NA	4.11	5.4–16	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2014	10	0.02	0.033	0.033–10	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
TTHMs [Total Trihalomethanes]—Stage 1 (ppb)	2014	80	NA	14	21–59	No	By-product of drinking water disinfection
Total Coliform Bacteria [Total Coliform Rule] (% positive samples)	2014	More than 5% positive samples in a month	(0)	1	NA	No	Naturally present in the environment

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	0.3	0.120	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2014	15	0.2	0	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits



SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2014	200	NS	0.08	ND–0.3	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2014	500	NS	115	85–160	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2014	15	NS	3.4	2.3–4.5	No	Naturally occurring organic materials
Copper (ppm)	2014	1.0	NS	0.0015	ND–0.0033	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Odor–Threshold (Units)	2014	3	NS	1	ND–3	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2014	1,600	NS	1,025	840–1,200	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2014	500	NS	195	170–230	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2014	1,000	NS	627	520–720	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2014	5	NS	0.02	0.01–0.09	No	Soil runoff
Zinc (ppm)	2014	5.0	NS	0.005	ND–0.02	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Bromochloromethane (ppb)	2013	42.5	ND–90
Bromochloroacetic Acid (ppb)	2014	1.37	1.9–5.5
Bromodichloromethane (ppb)	2014	3.75	6.80–14
Bromoform (ppb)	2014	2.04	1.8–13
Chlorate (ppb)	2014	200	220–320
Chloroform (ppb)	2014	3.71	6.0–13
Dibromoacetic Acid (ppb)	2014	1.12	1.1–6.4
Dichloroacetic Acid (ppb)	2014	1.07	2.1–6.9
Dibromochloromethane (ppb)	2014	4.55	6.3–22
Hardness (grains/gal)	2014	15.5	12.3–18.7
Hardness (ppm)	2014	265	210–320
Hexavalent Chromium (ppb)	2014	0.033	0.033–0.033
Molybdenum (ppb)	2013	3.7	3.0–4.2
Sodium (ppm)	2014	99.2	77–120
Strontium (ppb)	2013	688	490–790
Trichloroacetic Acid (ppb)	2014	1.33	2.1–4.8
Vanadium (ppb)	2013	1.8	1.4–2.2

¹The State Water Resources Control Board considers 50 pCi/L to be the level of concern for beta particles.

Definitions

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

grains/gal (grains per gallon): Grains of compound per gallon of water.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.